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Requests for Startups

RFS is our tradition of sharing ideas we'd like to see founders tackle. These represent just a fraction of what we fund — if one excites you, take it as extra validation to dive in, but you don't need to work on these ideas to apply to YC.
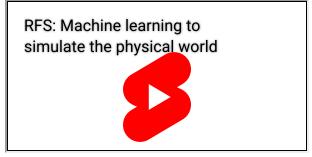
| Fall 2025 | Summer 2025 | Spring 2025 | Winter 2025 | Summer 2024 |

Summer 2024

These are the requests for startups we published in the summer of 2024, our first big list since the start of the new AI wave. The incredible explosion of AI capability has made this the best time to start a company in two decades. These are just some of the ideas we think are especially promising.

Using Machine Learning to Simulate the Physical World

By Diana Hu

RFS: Machine learning to simulate the physical world

Many essential software tools work by simulating the world using known principles of physics and chemistry. Weather prediction, computational fluid dynamics for designing rockets and airplanes, and tools for drug discovery that predict the interactions of molecules — today many of these are based on running a full physics simulation of the world. These are very computationally heavy since they are solving complex multivariate mathematical equations. It turns out that AI models are general functional approximators that can also solve and predict problems like these without needing to explicitly know about physics. This results in predictions that are much less computationally expensive and can be completed in minutes or seconds on much smaller computers

rather than taking days/weeks and super computers. We're interested in companies replacing existing simulations with ML-based ones, along with companies using ML-based simulations to open new markets currently unaddressable.
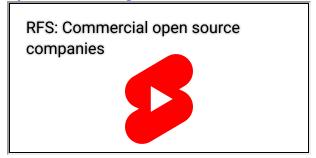
New Defense Technology

[By Jared Friedman](#)

The US is now engaged in large-scale conflicts in several regions that threaten to change our world. While the US has historically led the world in defense technology, the defense contractors it depends on have grown slow and inefficient, bloated by decades of cost-plus contracts. SpaceX showed the world that a private space company could be vastly more effective than the publicly-funded United Launch Alliance. New companies that sell to the DoD like Palantir and Anduril are showing that the same thing is true for defense tech. Silicon Valley was born in the early 20th century as an R&D area for the US military. Early Silicon Valley companies were largely funded by the DoD and played a key role in WWII by building military radar, code-breaking equipment, and components for the atomic bomb. This decade is the time to return Silicon Valley to these roots.
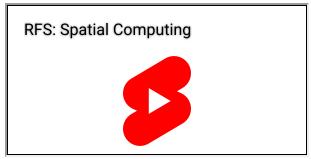
Commercial Open Source Companies

[By Nicolas Dessaigne](#)

Open source companies move more quickly than closed source companies. For developer tools, being open source is a powerful way to gain developer adoption. But it's also a great way for startups to become mature and sell to enterprises a lot sooner. Ultimately, open source companies succeed when they become the standard choice for software engineers. Very technical founders are at a strong advantage here, as the sales motion relies more on the technical merits of the project rather than strong sales tactics. It's more natural for technical founders to talk to users who are engineers just like them, and they can iterate faster since they'll get feedback from the open source community. YC has funded over 150 open source companies including Gitlab (W15), Docker (S10), Apollo (S11), Supabase (S20) to name a few, and we want to fund more.

Spatial Computing

[By Diana Hu](#)

RFS: Spatial Computing

Spatial computing is the use of technology to create experiences that merge the physical and digital worlds. It's a broad term that encompasses augmented reality (AR), virtual reality (VR), and mixed reality (MR). We're interested in startups that are building applications, tools, and infrastructure for spatial computing. This includes applications for consumers and enterprises, as well as tools for developers to build spatial applications. We believe that spatial computing will be the next major computing platform after mobile, and we want to fund the companies that will define this new era.

New Enterprise Resource Planning Software

[By Dalton Caldwell](#)

RFS: New enterprise resource planning (ERP) software

As companies get larger they end up adopting some software suite to help run their business. This piece of software is widely known as an "ERP", or Enterprise Resource Planning software. You can think of this software as the operating system that a business runs on. ERPs are usually known to be expensive, painful to implement, and disliked by users, yet are absolutely necessary and the very definition of business critical to its customers. We would like to see new startups that build software that helps businesses run. Ideally that software would be loved by its customers for its flexibility and ease of use. This type of software is so valuable and important that we can imagine that there is the opportunity for dozens of new massively successful vendors.

Developer Tools Inspired by Existing Internal Tools

[By Dalton Caldwell](#)

RFS: Dev tools inspired by existing internal tools

If a developer has worked at a company with some amount of success, they have likely encountered tools or frameworks that were built by programmers at the company to help solve their own particularly painful or repetitive problems. These tools tend to have funny internal nicknames and for the most part never see the light of day. When aspiring founders try to come up with new startup ideas they often don't realize that the internal tools they had at prior jobs are a great place to get inspiration from. We would like to see more startups created that are inspired by these types of homegrown tools, because it's likely that if it's very useful at one company, it's

very useful at others. The lineage of all software tools can often be traced back to something a programmer built to get their job done, and there is no reason to doubt this won't continue to be true.

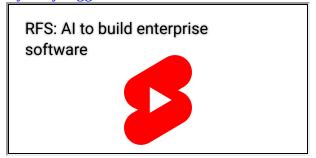## LLMs for Manual Back Office Processes in Legacy Enterprises

[By Tom Blomfield](#)

RFS: LLMs for manual back office processes in legacy enterprises

Legacy enterprises have many manual back office processes that are ripe for automation with LLMs. These processes are often repetitive, rule-based, and involve unstructured data. Examples include processing invoices, reviewing contracts, and handling customer service requests. LLMs are particularly well-suited for these tasks because they can understand and generate natural language, which is the format of much of the data in these processes. They can also be trained on specific domains and company data to improve their performance. We're interested in startups that are applying LLMs to automate these processes in legacy enterprises. We believe there is a massive opportunity to improve efficiency and reduce costs in these organizations.

AI to Build Enterprise Software

[By Harj Taggar](#)

RFS: AI to build enterprise software

Enterprise software has a reputation among smart programmers as being boring to work on. You have to do sales and because each potential customer wants something slightly different, you end up writing bloated software to try and please them all. But what if AI could change how enterprise software gets built and sold? The core of what every customer wants is the same — they just want it customized around the edges. AI is good at writing code — especially when you give it an existing codebase to learn from. So what if instead of long enterprise sales cycles you just give customers a simple starter product and have them tell your AI how they want it customized? In the future, every enterprise could have their own custom ERP, CRM or HRIS that is continually updating itself as the company itself is changing. A product based on this premise would be highly disruptive to large incumbents, because now they can't win by just copying you and adding another feature to their bloated software. Now they would have to completely change their whole conceptual approach to building software. Maybe the AI will get so good at this that it can think up new types of enterprise software that don't even exist yet. Building this AI would be an interesting technical challenge and if you're excited about building AI that can code, enterprise software is the most profitable software to build.

Stablecoin Finance

[By Brad Flora](#)

Stablecoins are digital currencies that peg their value to some external reference. This is typically the U.S. dollar, but it can be other fiat currencies, assets, or even other digital currencies. Their transactions are recorded on a

digital ledger, usually a blockchain. This means they can be traded at any time of day between any two wallets on the same network, transactions settle in seconds, and fees are a fraction of what you see in traditional finance. There's been much debate about the utility of blockchain technology, but it seems clear that stablecoins will be a big part of the future of money. We know this because YC companies have been effectively incorporating stablecoins into their operations for years now – for cross-border payments, to reduce transaction fees and fraud, to help users protect savings from hyperinflation. This utility is so straightforward it seems inevitable traditional finance will follow suit. In fact we're seeing signs of this. PayPal recently issued its own stablecoin. Major banks have started offering custody services and making noise about issuing their own. It all looks a bit like digital music's transition from the realm of outlaw file sharing in the early 2000s to becoming the norm as players like Apple entered the market. Importantly, those major players were all outmatched in the end by Spotify, a startup founded during that same transition moment. $136b worth of stablecoins have been issued to date but the opportunity seems much more immense still. Only about seven million people have transacted with stablecoins to date, while more than half a billion live in countries with 30%+ inflation. U.S. banks hold $17T in customer deposits which are all up for grabs as well. And yet the major stablecoin issuers can be counted on one hand and the major liquidity providers with just a few fingers. We would like to fund great teams building B2B and consumer products on top of stablecoins, tools and platforms that enable stablecoin finance and more stablecoin protocols themselves.

A Way to End Cancer

[By Surbhi Sarna](#)
The technology to diagnose cancer at an early stage already exists. Since most cancers are now treatable if caught early enough, this technology would dramatically reduce cancer deaths if rolled out widely and affordably. The technology we're talking about is an MRI. Modern MRIs are sensitive enough to detect cancer masses as small as a millimeter. Some companies are already having success on a small scale offering MRIs to patients for a high cash price. However, there is backlash from the medical community as MRIs also create incidental findings (or false positives), that cost our healthcare system valuable time and money to investigate. For this to work, the world would need to scale up the number of MRI scans it does by at least 100x. Doing that will require innovations in the MRI hardware, the AI algorithms to interpret scans and reduce false positives, and the business models and consumer marketing to make it a viable business. We're interested in funding companies looking to tackle this multifaceted problem. While much exciting progress is being made on cancer therapeutics, finding cancer early enough for our existing therapeutics to be curative might be the opportunity with the greatest potential impact.

Foundation Models for Biological Systems

[By Surbhi Sarna](#)
The vast majority of scientific innovation fails – either on the bench during early experimentation or while in clinical trials. Foundation models built around the vast amount of data we now have will not only enable scientists to know what path to pursue much quicker than before, but have the potential to unlock new scientific approaches to disease. Foundation models built around text and images are enabling the next-generation of consumer products; we believe foundation models built around biological systems will do the same for healthcare. We are interested in funding highly technical founders building foundational models from scratch in any part of biology or medicine.

The Managed Service Organization Model for Healthcare

[By Surbhi Sarna](#)
Private equity is consuming small and large private clinics all over the country. By the time more junior healthcare workers are paid, they only make a fraction of what they are billing. This causes them to be overworked but underpaid, as much of the revenue goes to overhead and the private equity owner of the clinic. A new startup model has emerged as an alternative to PE ownership: the MSO (Managed Service Organizations) model. The MSO model enables doctors to run their own clinics by (1) providing them software that can handle

back office tasks such as billing and scheduling and (2) channeling patients to them. These functions are largely what PE ownership provides. Doctors who are part of an MSO model can continue to run small, physician-owned practices while competing successfully with large, PE-owned conglomerates. YC has funded several companies doing this in different verticals: Nourish (nutritionists), LunaJoy (mental health for women), Finni Health (autism care for children), and others. We are interested in investing in this MSO (Managed Service Organizations) model across every vertical in healthcare.

Eliminating Middlemen in Healthcare

By Surbhi Sarna

The US spends more money per person on healthcare than any other developed nation, yet our patient outcomes are no better. Much of our spend goes to paying middlemen — which in our view includes everyone not directly providing care to patients. A recent report on medicare spending on drugs found that 70% of spend went to middlemen (primarily PBMs, wholesalers, and pharmacies) and only 30% to the pharmaceutical companies who make the drugs. Similar dynamics exist in every other vertical — hospital care, medical equipment, insurance, etc. There are many ways startups could attack these inefficiencies, from using AI to automate repetitive human jobs to exploring new and better business models for providing care. In the spirit of Jeff Bezos' "your margin is my opportunity", we believe it's possible to build a highly profitable business and make the system more efficient at the same time.

Small Fine-tuned Models as an Alternative to Giant Generic Ones

By Nicolas Dessaigne

Giant generic models with a lot of parameters are very impressive. But they are also very costly and often come with latency and privacy challenges. Fortunately, smaller open-source models like Llama2 and Mistral have already demonstrated that, when finely tuned with appropriate data, they can yield comparable results at a fraction of the cost. Moreover, as new hardware continues to be integrated into our phones and laptops, the prospect of running these models at the edge becomes increasingly feasible, unlocking a multitude of new use cases. We are eager to support companies engaged in developing or fine-tuning such specialized models or creating tools to facilitate their construction.

Explainable AI

By Diana Hu

Would you trust an AI to diagnose you? Would you swear that a model is unbiased? Or more simply, how can we be sure that a model doesn't hallucinate an answer? Understanding model behavior is very challenging, but we believe that in contexts where trust is paramount it is essential for an AI model to be interpretable. Its responses need to be explainable. For society to reap the full benefits of AI, more work needs to be done on explainable AI. We are interested in funding people building new interpretable models or tools to explain the output of existing models.

Applying Machine Learning to Robotics

By Diana Hu

Robotics hasn't yet had its GPT moment, but we think it's close. YC has followed robotics closely for two decades. In fact, one of YC's founders, Trevor Blackwell, is a pioneering roboticist who built the first dynamically balancing bipedal robot. For decades, everyone has known that robots are the future, as any science fiction novel will show. But that future proved elusive because previous generations of robots were expensive and brittle, requiring controlled conditions. With the rapid improvements in foundation models, it's finally possible to make robots that have human-level perception and judgment. That's been the missing piece. While consumer use-cases feature heavily in science fiction, some of the overlooked and most immediately addressable applications for robots are B2B. Specifically, we think promising areas are industrial use-cases like Gecko Robotics (W16), which builds inspection robots, and farm use-cases like Bear Flag Robotics (W18), which

builds autonomous tractors and was acquired by John Deere. We're interested in funding people building software tools to help other people to make robots, along with people building the robots themselves.

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